

LSU Northeast Research Station

Evaluation of preemergence herbicides for annual grass control in corn

Trial ID: SJ05C009

Investigator:

Location:

Study Dir.: Bill Williams

GENERAL TRIAL INFORMATION**Study Director:** Bill Williams**CROP AND PEST DESCRIPTION**

Weed 1.BRAPP Signalgrass **2.**DIGSA crabgrass, larg **3.**SETGL Foxtail, yellow
4.EHCG Barnyardgrass

Crop 1: ZEAMX Corn**Variety:** Dekalb 6971**Planting Date:** 4/14/05**Planting Method:** BEDDED**Rate:** 30000 LB/A**Depth:** 2 "**Row Spacing:** 40 "**Seed Bed:** FINE/TRASHY**Soil Moisture:** DRY**Emergence Date:** 4/22/05**Plot Width, Unit:** 15 FT**Plot Length, Unit:** 25 FT**Reps:** 3**Site Type:** FIELD**Tillage Type:** CONVENTIONAL-TILL**Study Design:** RANDOMIZED COMPLETE BLOCK**SOIL DESCRIPTION****Texture:** SILTY CLAY LOAM**% OM:** 0.6**pH:** 5.3**CEC:** 6.3**Soil Name:** Tunica**Fertility Level:** EXCELLENT**MOISTURE CONDITIONS**

On: Date	Time	Amount	Unit	Type	Interval	Unit
1.4/26/05	3:00 AM	1.04	in	Rainfall		n/a
2.4/27/05	8:30 AM	0.04	in	Rainfall		n/a
3.4/30/05	3:00 AM	0.21	in	Rainfall		n/a
4.5/10/05	6:30 PM	0.25	in	Rainfall		n/a
5.5/15/05	5:30 PM	0.46	in	Rainfall		n/a
6.5/25/05	8:00 PM	0.78	in	Rainfall		n/a
7.5/29/05	1:00 AM	0.63	in	Rainfall		n/a
8.5/30/05	11:00 A	1.51	in	Rainfall		n/a
9.5/31/05	8:00 PM	0.26	in	Rainfall		n/a
10.6/2/05	4:00 PM	0.04	in	Rainfall		n/a
11.6/6/05	7:00 PM	0.39	in	Rainfall		n/a
12.6/18/05	11:00 A	0.42	in	Rainfall		n/a
13.7/3/04	6:00 PM	0.06	in	Rainfall		n/a
14.7/6/05	1:30 PM	1.6	in	Rainfall		n/a
15.7/8/05	1:45 PM	0.93	in	Rainfall		n/a
16.7/10/05	1:00 PM	0.04	in	Rainfall		n/a
17.7/14/05	2:00 PM	0.44	in	Rainfall		n/a
18.7/16/05	10:00 P	0.04	in	Rainfall		n/a
19.7/17/05	1:00 PM	0.25	in	Rainfall		n/a
20.7/18/05	7:00 PM	0.05	in	Rainfall		n/a

Overall Moisture Conditions: DRY**Closest Weather Station:** Northeast Research Station**Distance:** 0.75 **Unit:** MI

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APPLICATION DESCRIPTION

	A	B	C	D	E	F
Application Date:	4/15/05	4/27/05	5/3/05			
Time of Day:	2:00	11:00	4:00			
Application Method:	SPRAY	SPRAY	SPRAY			
Application Timing:	PRE	V1	EPOST			
Applic. Placement:	BROSOI	BROFOL	BROFOL			
Air Temp., Unit:	83 F	75 F	69 F			
% Relative Humidity:	45	31	39			
Wind Velocity, Unit:	4 S	1 S	5 NW			
Soil Temp., Unit:	80 F	75 F	71 F			
Soil Moisture:	dry	moist	dry			
% Cloud Cover:	0	0	0			

CROP STAGE AT EACH APPLICATION

	A	B	C	D	E	F
ZEAMX		V1	V3			
Stage Scale:	n/a	1 in	2-4 in			

WEED STAGE AT EACH APPLICATION

	A	B	C	D	E	F
Weed 1 BRAPP Stage:	n/a	1 lf	2-3 lf			
Stage Scale:	n/a	<1 in	1-2 in			
Weed 2 DIGSA Stage:	n/a	1 lf	2-3 lf			
Stage Scale:	n/a	<1 in	1-2 in			
Weed 3 SETGL Stage:	n/a	n/a	1-2 lf			
Stage Scale:	n/a	n/a	1 in			
Weed 4 EHCG Stage:	n/a	n/a	1-2 lf			
Stage Scale:	n/a	n/a	1 in			

APPLICATION EQUIPMENT

	A	B	C	D	E	F
Appl. Equipment:	Tractor	Tractor	Tractor			
Operating Pressure:	34	34	34			
Nozzle Type:	Ven	Ven	Ven			
Nozzle Size:	11002	11002	11002			
Nozzle Spacing, Unit:	20 "	20 "	20 "			
Nozzles/Row:	2	2	2			
Carrier:	Water	Water	Water			
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA			
Propellant:	CO2	CO2	CO2			

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Weed Code	BRAPP	BRAPP	BRAPP	BRAPP
Crop Code				
Part Rated	PLATOT P	PLATOT P	PLATOT P	PLATOT P
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%	%
Rating Date	5/12/05	5/26/05	6/3/05	7/25/05
Trt-Eval Interval	9 DA-C	23 DA-C	31 DA-C	83 DA-C
PRM Data Type				
# Subsamples, Dec.				

Trt No.	Treatment Name	Rate	Rate Unit	Grow Stg	1	2	3	4	
1	Atrazine	2	QT/A	V1	67	d 63	d 0	e 0	f
2	DUAL II MAGNUM	1.3	LB A/A	PRE	95	a 88	ab 90	a 90	a
3	PROWL	1.0	LB A/A	PRE	85	c 85	b 80	b 80	b
4	DUAL II MAGNUM	1.3	LB A/A	V1	90	b 50	e 0	e 0	f
5	PROWL	1.0	LB A/A	V1	90	b 73	c 0	e 0	f
6	Steadfast	0.5	OZ/A	EPOST	90	b 85	b 43	d 37	e
7	Roundup Weathermax	22	OZ/A	EPOST	90	b 85	b 43	d 37	e
8	Steadfast	0.5	OZ/A	EPOST	90	b 93	a 67	c 63	c
	DUAL II MAGNUM	1.3	LB A/A	EPOST					
9	Steadfast	0.5	OZ/A	EPOST	95	a 88	ab 60	c 60	cd
	PROWL	1.0	LB A/A	EPOST					
10	Roundup Weathermax	22	OZ/A	EPOST	95	a 93	a 63	c 53	d
	DUAL II MAGNUM	1.3	LB A/A	EPOST					
11	Roundup Weathermax	22	OZ/A	EPOST	95	a 92	ab 80	b 80	b
	PROWL	1.0	LB A/A	EPOST					
LSD (P=.05)					3.0	7.7	7.5	8.1	
Bartlett's X2					0.0	6.996	1.613	1.613	
P(Bartlett's X2)					.	0.638	0.657	0.657	

Means followed by same letter do not significantly differ (P=.05, LSD)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Weed Code	DIGSA	DIGSA	DIGSA	DIGSA
Crop Code	PLATOT P	PLATOT P	PLATOT P	PLATOT P
Part Rated	CONTROL	CONTROL	CONTROL	CONTROL
Rating Data Type	%	%	%	%
Rating Unit	5/12/05	5/26/05	6/3/05	7/25/05
Trt-Eval Interval	9 DA-C	23 DA-C	31 DA-C	83 DA-C
PRM Data Type				
# Subsamples, Dec.				
Trt Treatment	Rate	Grow		
No. Name	Rate Unit	Stg	5	6
			7	8
1 Atrazine	2 QT/A	V1	90	b 60
2 DUAL II MAGNUM	1.3 LB A/A	PRE	95	a 83
3 PROWL	1.0 LB A/A	PRE	85	c 75
4 DUAL II MAGNUM	1.3 LB A/A	V1	85	c 50
5 PROWL	1.0 LB A/A	V1	85	c 75
6 Steadfast	0.5 OZ/A	EPOST	90	b 82
7 Roundup Weathermax	22 OZ/A	EPOST	90	b 82
8 Steadfast	0.5 OZ/A	EPOST	60	d 92
DUAL II MAGNUM	1.3 LB A/A	EPOST		a 77
9 Steadfast	0.5 OZ/A	EPOST	95	a 83
PROWL	1.0 LB A/A	EPOST		abc 70
10 Roundup Weathermax	22 OZ/A	EPOST	95	a 92
DUAL II MAGNUM	1.3 LB A/A	EPOST		a 87
11 Roundup Weathermax	22 OZ/A	EPOST	95	a 90
PROWL	1.0 LB A/A	EPOST		ab 90
LSD (P=.05)			0.0	8.8
Bartlett's X2			0.0	7.81
P(Bartlett's X2)			.	0.35
				6.1
				3.2
				0.873
				0.35

Means followed by same letter do not significantly differ (P=.05, LSD)

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Weed Code				SETGL	SETGL	SETGL	ECHCG
Crop Code							
Part Rated				PLATOT P	PLATOT P	PLATOT P	PLATOT P
Rating Data Type				CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit				%	%	%	%
Rating Date				5/12/05	6/3/05	7/25/05	5/26/05
Trt-Eval Interval				9 DA-C	31 DA-C	83 DA-C	23 DA-C
PRM Data Type							
# Subsamples, Dec.							
Trt Treatment	Rate	Grow					
No. Name	Rate Unit	Stg	9	10	11	12	
1 Atrazine	2 QT/A	V1	85	c 0	c 0	c 67	d
2 DUAL II MAGNUM	1.3 LB A/A	PRE	90	b 90	a 90	a 92	ab
3 PROWL	1.0 LB A/A	PRE	90	b 80	b 80	b 83	bc
4 DUAL II MAGNUM	1.3 LB A/A	V1	90	b 0	c 0	c 0	e
5 PROWL	1.0 LB A/A	V1	60	e 0	c 0	c 77	cd
6 Steadfast	0.5 OZ/A	EPOST	80	d 90	a 90	a 70	d
7 Roundup Weathermax	22 OZ/A	EPOST	90	b 90	a 90	a 85	abc
8 Steadfast	0.5 OZ/A	EPOST	60	e 90	a 90	a 95	a
	DUAL II MAGNUM	1.3 LB A/A	EPOST				
9 Steadfast	0.5 OZ/A	EPOST	95	a 90	a 90	a 88	ab
	PROWL	1.0 LB A/A	EPOST				
10 Roundup Weathermax	22 OZ/A	EPOST	95	a 90	a 90	a 93	ab
	DUAL II MAGNUM	1.3 LB A/A	EPOST				
11 Roundup Weathermax	22 OZ/A	EPOST	95	a 90	a 90	a 92	ab
	PROWL	1.0 LB A/A	EPOST				
LSD (P=.05)			0.0	0.0	0.0	10.4	
Bartlett's X2			0.0	0.0	0.0	10.546	
P(Bartlett's X2)			.	.	.	0.229	

Means followed by same letter do not significantly differ (P=.05, LSD)

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Weed Code				ECHCG	ECHCG			ZEAMX	ZEAMX
Crop Code						PLATOT P	PLATOT P	GRAIN C	GRAIN C
Part Rated						CONTROL	CONTROL	Lb/plt	Bu/A
Rating Data Type						CONTROL	CONTROL	Lb/plt	Bu/A
Rating Unit						%	%	15%	15% Mst
Rating Date						6/3/05	7/25/05	9/8/05	9/8/05
Trt-Eval Interval						31 DA-C	83 DA-C		
PRM Data Type								TY1	
# Subsamples, Dec.								0	
Trt No.	Treatment Name	Rate	Unit	Grow Stg	13	14	15	16	
1	Atrazine	2	QT/A	V1	0	d 0	f 27	a 163	a
2	DUAL II MAGNUM	1.3	LB A/A	PRE	90	a 90	a 28	a 172	a
3	PROWL	1.0	LB A/A	PRE	80	a 80	b 27	a 167	a
4	DUAL II MAGNUM	1.3	LB A/A	V1	0	d 0	f 25	a 153	a
5	PROWL	1.0	LB A/A	V1	0	d 0	f 27	a 166	a
6	Steadfast	0.5	OZ/A	EPOST	47	c 43	e 25	a 154	a
7	Roundup Weathermax	22	OZ/A	EPOST	43	c 40	e 28	a 170	a
8	Steadfast	0.5	OZ/A	EPOST	67	b 63	c 25	a 153	a
	DUAL II MAGNUM	1.3	LB A/A	EPOST					
9	Steadfast	0.5	OZ/A	EPOST	60	b 60	cd 28	a 174	a
	PROWL	1.0	LB A/A	EPOST					
10	Roundup Weathermax	22	OZ/A	EPOST	60	b 53	d 30	a 182	a
	DUAL II MAGNUM	1.3	LB A/A	EPOST					
11	Roundup Weathermax	22	OZ/A	EPOST	80	a 80	b 27	a 168	a
	PROWL	1.0	LB A/A	EPOST					
LSD (P=.05)					11.0	6.9	6.3	38.6	
Bartlett's X2					3.224	1.332	5.13	5.13	
P(Bartlett's X2)					0.358	0.514	0.882	0.882	

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Column 16: TY1 = 6.137908*[15]